REMARKS/ARGUMENTS

Applicant would like to thank the Examiner for the careful consideration given the present application. Reconsideration of the subject patent application in view of the present remarks is respectfully requested.

Claims 42, 46-48, 59-61, 63, 67-68, 76-77, 79-81, 84-87, 94 and 117 are amended.

Claims 1-41, 71-75, 78 and 106 are canceled.

Claims 51, 52, 54, 95-99, 108, 109 and 112-116 are withdrawn.\

Claim Rejections - 35 USC § 103

Claims 42-48, 53, 55-93, 100-105 and 117 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sjoberg et al. (US 6,106, 761; hereinafter "Sjoberg") in view of Hardy et al. (US 5,918,641; hereinafter "Hardy") and either of Hirokazu et al. (US 3,513,228; hereinafter "Hirokazu") or Kent (US 2,528,523). Applicants respectfully request withdrawal of the rejection for at least the following reasons.

Claims 71-75 and 78 have been cancelled. Thus, the rejection as it applies to claims 71-75 and 78 should be withdrawn.

Regarding the amended claim 42, none of Sjoberg, Hardy, Hirokazu and Kent, alone or in combination, discloses, teaches or renders foreseeable that said cross-linking of said extruded polymer material is activated by application of infrared radiation comprising wavelengths **corresponding to** the absorption peaks for the polymer material.

The Office action states that Sjoberg teaches crosslinking the polymer mixture with infrared radiation. However, according to Sjoberg, the polymer material is irradiated with infrared radiation having wave lengths which **differ from** the wave lengths which are absorbed by the polymer material in question (Sjoberg; column 3, lines 17-19). This disclosure teaches away from the claim 42 invention which requires the application of the infrared radiation comprising wavelengths **corresponding to** the absorption peaks for the polymer material. Hardy, Hirokazu and Kent are silent about the wavelengths of the infrared radiation for cross-linking the polymer material.

Accordingly, the combination of Sjoberg, Hardy, Hirokazu and Kent does not meet all of the limitations of claim 42. Therefore, the asserted combination of Sjoberg, Hardy, Hirokazu and Kent does not render claim 42 obvious. Thus, withdrawal of the rejection as it applies to claim 42 is respectfully requested.

Claims 43-48, 53, 55-70, 76-77, 79-93, 100-105 and 117 which are directly or indirectly dependent from claim 42 should be allowable for at least the same reason as claim 42.

Claims 49, 50, 94, 107, 110 and 111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sjoberg in view of Hardy and either of Hirokazu or Kent, and further in view of Procida et al. (WO 99/67560; hereinafter "Procida"). Applicants respectfully request withdrawal of the rejection for at least the following reasons.

Claims 49, 50, 94, 107, 110 and 111 are directly or indirectly dependent from claim 42. Thus, all of the limitations of claim 42 are included in claims 49, 50, 94, 107, 110 and 111. For the same reason as claim 42, claims 49, 50, 94, 107, 110 and 111 should be allowable. Procida is

merely cited for a method of extruding directly onto the carcass of an offshore pipe. Procida is silent about the wavelengths of the infrared radiation for cross-linking the polymer material.

Claims 78-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sjoberg in view of Hardy and either of Hirokazu or Kent, and further in view of Heino (WO 01/00381). Applicants respectfully request withdrawal of the rejection for at least the following reasons.

Claim 78 has been cancelled. Thus, the rejection as it applies to claim 78 should be withdrawn.

Claims 79-81 are dependent from claim 42. Thus, all of the limitations of claim 42 are included in claims 79-81.

Regarding claims 79-81, none of none of Sjoberg, Hardy, Hirokazu, Kent and Heino, alone or in combination, discloses, teaches or renders foreseeable that said cross-linking of said extruded polymer material is activated by application of infrared radiation comprising wavelengths corresponding to the absorption peaks for the polymer material.

Sjoberg teaches away from the above feature, as discussed above regarding claim 42. Hardy, Hirokazu and Kent are silent about the wavelengths of the infrared radiation for cross-linking the polymer material. The Office action states that Heino discloses a method of crosslinking polyethylene with infrared radiation wherein the suitable wavelength is given to be 5.0 micrometers to 1.2 micrometers and further notes that the wavelength to be employed is readily optimized. However, according to Heino, the infrared radiation wavelength range can be so chosen that it optimally corresponds to the characteristic oscillation frequencies of the **additive** (Heino; col. 3, lines 57-59). A typical example of such an additive is a chemical

crosslinking agent, such as organic peroxide (Heino; col. 1, lines 18-20). The additive such as organic peroxide is different from the polymer material such as polyethylene, because the additive is merely an initiator for the crosslinking reaction while the polymer material is a material which itself is crosslinked. There is no disclosure in Heino that the applied infrared radiation comprises wavelengths corresponding to the absorption peaks for the **polymer material**. When using infrared radiation comprising wavelengths corresponding to the absorption peaks for the polymer material, the present invention provides an unexpected effect that a very fast cross-linking with at high degree of cross-linking can be obtained. In addition, Heino is not combinable with Sjoberg, because Sjoberg, which describes that the polymer material is irradiated with infrared radiation having wave lengths which **differ from** the wave lengths which are absorbed by the polymer material, teaches away from the claimed invention which requires the use of the wavelengths **corresponding to** the absorption peaks for the polymer material.

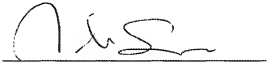
Accordingly, the combination of Sjoberg, Hardy, Hirokazu, Kent and Heino does not meet all of the limitations of claims 79-81. Therefore, the asserted combination of Sjoberg, Hardy, Hirokazu, Kent and Heino does not render claims 79-81 obvious. Thus, withdrawal of the rejection as it applies to claims 79-81 is respectfully requested.

In consideration of the foregoing analysis, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. NKTR 46363.

Respectfully submitted,

PEARNE & GORDON LLP

By: 
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